

WHAT IS CLAIMED IS:

- 5 1. Thermo- and photo stable preparations, comprising a chitosan-xanthan hydrogel, said hydrogel including in its matrix at least one thermo- or photo sensitive active ingredient selected from vitamins, amino-acids, nucleic acids, polypeptides and mixtures thereof, said hydrogel being adapted to control the release of said active ingredients in either humans or animals.
- 10 2. Preparations according to claim 1 in which said active ingredients are vitamins and are present preferably within 5-25.wt% of the total weight of the preparation.
- 15 3. Preparations according to claim 2 in which said vitamins are selected from vitamins A, B, C, D, E, K and mixtures thereof.
- 20 4. Preparations according to claim 3 in which said vitamin is vitamin A.
- 25 5. Preparations according to claim 3 in which said vitamin is vitamin C.
6. Preparations according to claim 1 in which said thermo- or photo sensitive active ingredients comprise liposoluble ingredients.
7. Preparations according to claim 1 in which said thermo- or photo-sensitive active ingredients comprise hydrosoluble ingredients.
- 30 8. Method of making the preparations of claim 6 comprising the following steps:

09301670-042899

B1

09301670-042880

a) dissolving said liposoluble active ingredients in an appropriate solvent so as to form a solution;

b) adding the solution created in a), under agitation, to a xanthan solution so as to form a mixture;

5 c) spraying the mixture created in b) into a chitosan solution; and

d) recuperating of the hydrogel thus formed,

wherein steps a) to d) are essentially conducted in the absence of oxygen (air) and light.

10 9. Method of making the preparations of claim 7 comprising the following steps:

a) spraying a solution of xanthan into a solution of chitosan so as to form a hydrogel;

15 b) recovering the hydrogel formed in (a) followed by freeze-drying (or lyophilisating) the hydrogel;

c) introducing the freeze-dried hydrogel into an aqueous solution comprising at least one of said hydrosoluble active ingredients;

20 d) incorporating said hydrosoluble active ingredient(s) in the hydrogel by diffusion into the swollen hydrogel having a swelling index of 2000% or beyond to obtain a loaded hydrogel;

e) recovering said loaded hydrogel.

10. Method according to claim 9 wherein in said step c), said hydrosoluble active ingredient are stabilized by the addition of amino-acids.

25 11. Method according to claim 10 in which said amino-acids are chosen among L-cysteine, L-cystine and L-methionine and mixtures thereof.

30 12. Method according to claim 9 wherein in said step (c), said hydrosoluble active ingredient are stabilized by the addition of tripeptides.

13. A dermatological product comprising the preparations of claim 1.

14. The dermatological product of claim 13, wherein the product is a cream.

5

15. The dermatological product of claim 14 wherein said thermo- and photosensitive substance is vitamin A.

16. A food additive comprising the preparations of claim 1.

10

add
B1

09301670-042899